WHAT IS CLAIMED IS:

1. An apparatus for detecting a biological target, , the apparatus comprising:
   a) a support surface;
   b) glycopolymers, able to bind with surface target-associated molecular patterns of the target, coating the support surface; and
   c) transduction means for detecting a binding event between the glycopolymers and the glycoconjugates.

2. The apparatus of claim 1 wherein the support surface is selected from a group consisting of (A) an ELISA plate, (B) a plate for surface acoustic wave measurement, (C) a surface on a quartz crystal microbalance, (D) a surface on a transduction means sensitive to changes in mass, (E) a surface on an electrochemical device, (F) a surface on an ion sensitive electrode, (G) a surface on an ion selective field effect transistor, (H) a surface on a light emitting surface, and (I) a surface on an optically active surface.

3. The apparatus of claim 1 wherein the glycopolymers are carbohydrates appended to polymers.

4. The apparatus of claim 1 wherein the glycopolymers are sugar molecules conjugated with covalent linking.

5. The apparatus of claim 4 wherein the covalent linking uses ester or amide bonding.

6. The apparatus of claim 1 wherein the glycopolymers are sugar molecules linked, through ionic or other non-covalent interactions, with conjugating molecules.

7. The apparatus of claim 6 wherein the conjugating molecules are selected from a group of conjugating molecules consisting of (A) small molecular bifunctional linkers, (B) small molecular multifunctional linkers, (C) tethers, (D) dendrimers of various generations, (E) synthetic macromolecules, and (F) natural macromolecules.

8. The apparatus of claim 3, wherein the polymers are polyacrylamide (PAA).

9. The apparatus of claim 1 wherein the glycopolymers are fluorescent.

10. The apparatus of claim 1 wherein the glycopolymers are multivalent.

11. The apparatus of claim 1 wherein the glycopolymers are monovalent.

12. The apparatus of claim 1 wherein the glycopolymers are polyvalent.

13. The apparatus of claim 1 wherein the means for detecting a binding event is antibody color detection.

14. The apparatus of claim 1 wherein the biological target is a bacterial spore.

15. The apparatus of claim 1 wherein the biological target is *Bacillus cereus* spores.

16. The apparatus of claim 15 wherein the target-associated molecular patterns include at least two of Gal α 1-3 GalNAc α-PAA-flu, Gal β 1-4 Glc β-PAA-flu.

17. The apparatus of claim 1 wherein the target is *Bacillus thuringiensis* spores.

18. The apparatus of claim 17 wherein the target-associated molecular patterns include at least two of Fuc α 1-4 GlcNAc β-PAA-flu, Fuc α1-3 GlcNAc β-PAA-flu.

19. The apparatus of claim 1 wherein the target is *Bacillus subtilis* spores.

20. The apparatus of claim 19 wherein the target-associated molecular patterns at least two of GlcNAc β 1-4 GlcNAc β-PAA-flu, Gal β1-3 Gal β-PAA-flu.

21. The apparatus of claim 1 wherein the target is *Bacillus pumilus* spores.

22. The apparatus of claim 21 wherein the target-associated molecular patterns include at least two of Gal β1-3 GalNAc β-PAA-flu , Gal α 1-3GalNAc α -PAA-flu.

23. A method for fabricating a glycoconjugate sensor for sensing a target, the method comprising:

a) coating a support surface with glycopolymers able to bind with target-associated molecular patterns on a surface of the target; and

b) incorporating means to detect a binding event between target-associated molecular patterns on the surface of the target and the glycopolymers.

24. The method of claim 23 wherein the surface target-associated molecular patterns are identified by fluorophore assisted carbohydrate electrophoresis analysis.

25. The method of claim 24 further comprising identifying carbohydrate binding partners able to bind with the target-associated molecular patterns.

26. The method of claim 23 wherein the support surface is an ELISA plate.

27. The method of claim 23 wherein the glycopolymers are carbohydrates appended to polymers, and wherein the polymers are polyacrylamide (PAA).

28. The method of claim 23 wherein the glycopolymers are fluorescent.

29. The method of claim 23 wherein the glycopolymers are multivalent.

30. The method of claim 23 wherein the glycopolymers are monovalent.

31. The method of claim 23 wherein the glycopolymers are polyvalent.

32. The method of claim 23 wherein the support surface is an ELISA plate, and wherein the act of coating a support surface includes

i) coating wells of an ELISA plate with glycopolymers;

ii) incubating the coated plate;

iii) washing the incubated coated plate;

iv) blocking the washed, incubated, coated plate; and

v) incubating the blocked plate.

33. The method of claim 23 wherein the target is *Bacillus cereus* spores.

34. The method of claim 33 wherein the glycopolymers include at least two of Gal α 1-3 GalNAc α-PAA-flu, Gal β 1-4 Glc β-PAA-flu.

35. The method of claim 23 wherein the target is *Bacillus thuringiensis* spores.

36. The method of claim 35 wherein the glycopolymers include at least two of Fuc α 1-4 GlcNAc β-PAA-flu, Fuc α1-3 GlcNAc β-PAA-flu.

37. The method of claim 23 wherein the target is *Bacillus subtilis* spores.

38. The method of claim 37 wherein the glycopolymers include at least two of GlcNAc β 1-4 GlcNAc β-PAA-flu, Gal β1-3 Gal β-PAA-flu.

39. The method of claim 23 wherein the target is *Bacillus pumilus* spores.

40. The method of claim 39 wherein the glycopolymers include at least two Gal β1-3 GalNAc β-PAA-flu, Gal α 1-3GalNAc α -PAA-flu.

41. A method for detecting target entities in solution, the method comprising:
    a) exposing a sensor coated with glycopolymer substrate to a solution containing targets with target-associated molecular patterns on their surfaces;
    b) allowing specific binding between the target-associated molecular patterns on the surface of the target and glycopolymers of the sensor to occur; and
    c) identifying specific binding, if any, between the target-associated molecular patterns on the surfaces of the targets and the glycopolymers of the sensor.

42. The method of claim 41 wherein the act of identifying specific binding is based on a colorimetric reaction.

43. The method of claim 42 wherein the colorimetric reaction is quantifiable by spectrophotometric analysis.

44. The method of claim 41 wherein the sensor is an ELISA glycoconjugate sensor.

45. The method of claim 41 wherein the specific binding is a carbohydrate interaction with the target.

46. A product for recognizing target entities in solution, the product comprising:
a) a support surface;
b) glycopolymers, able to bind with target-associated molecular patterns on a surface of the target, coating the support surface.

47. The product of claim 46 wherein the support surface is an ELISA plate.

48. The product of claim 46 wherein the glycopolymers are carbohydrates appended to polymers.

49. The product of claim 48 wherein the polymers are polyacrylamide (PAA).

50. The product of claim 46 wherein the glycopolymers are fluorescent.

51. The product of claim 46 wherein the glycopolymers are multivalent.

52. A system for detecting a biological target is solution, the system comprising:
a) a solution including glycopolymers, able to bind with target-associated molecular patterns on a surface of the target; and
b) transduction means for detecting a binding event between the glycopolymers and the target-associated molecular patterns.

53. The system of claim 52 wherein the glycopolymers are fluorescent.

54. The system of claim 52 wherein the glycopolymers are multivalent.

55. The system of claim 52 wherein the glycopolymers are monovalent.

56. The system of claim 52 wherein the glycopolymers are polyvalent.

57. The system of claim 52 wherein the biological target is a bacterial spore.

58. The system of claim 52 wherein the biological target is *Bacillus cereus* spores.

59. The system of claim 58 wherein the glycopolymers include at least two of Gal α 1-3 GalNAc α-PAA-flu, Gal β 1-4 Glc β-PAA-flu.

60. The system of claim 52 wherein the target is *Bacillus thuringiensis* spores.

61. The system of claim 60 wherein the glycopolymers include at least two of Fuc α 1-4 GlcNAc β-PAA-flu, Fuc α1-3 GlcNAc β-PAA-flu.

62. The system of claim 52 wherein the target is *Bacillus subtilis* spores.

63. The system of claim 62 wherein the glycopolymers include at least two of GlcNAc β 1-4 GlcNAc β-PAA-flu, Gal β1-3 Gal β-PAA-flu.

64. The system of claim 52 wherein the target is *Bacillus pumilus* spores.

65. The system of claim 64 wherein the glycopolymers include at least two of Gal β1-3 GalNAc β-PAA-flu, Gal α 1-3GalNAc α -PAA-flu.

66. The method of claim 41 further comprising:

d) generating a binding curve from identified specific bindings, if any, between the target-associated molecular patterns on the surface of the target and the glycopolymers of the sensor; and

e) identifying the target using the generated binding curve.

67. The method of claim 41 wherein the sensor coated with glycopolymer substrate includes a number of areas, each area having a glycopolymer with a different concentration of glycoconjugates.

68. The method of claim 41 wherein the sensor coated with glycopolymer substrate includes a number of areas, each area having a glycopolymer with a serially diluted concentration of glycoconjugates.

69. The apparatus of claim 1 wherein the target-associated molecular patterns are glycoconjugates.

70. The method of claim 23 wherein the target-associated molecular patterns are glycoconjugates.

71. The method of claim 41 wherein the target-associated molecular patterns are glycoconjugates.

72. The product of claim 46 wherein the target-associated molecular patterns are glycoconjugates.

73. The system of claim 52 wherein the target-associated molecular patterns are glycoconjugates.